

CLAIMS

What is claimed is:

1 1. A method of displaying a standard definition television signal on a high definition
 2 matrix display, comprising the steps of:
 3 receiving the standard definition television signal to provide a received
 4 signal;
 5 sampling the received signal to provide a sampled digital video signal;
 6 deinterlacing the sampled digital video signal to provide a progressive
 7 line signal;
 8 doubling the progressive line signal to provide a predetermined
 9 number of active lines of video in a frame; and
 10 displaying the predetermined number of active lines of video on the
 11 high definition matrix display in a shortened vertical interval.

1 2. The method of claim 1, where the method further comprises the step of storing
 2 the progressive line signal into a memory before the step of doubling.

1 3. The method of claim 1, wherein the step of doubling comprises the step of
 2 reading each line of the progressive line signal twice from the memory to produce a
 3 standard 960p signal, wherein the progressive line signal is a 480p signal.

1 4. The method of claim 2, wherein the method further comprises the step of reading
 2 each line of the progressive line signal twice from the memory at a speed fast
 3 enough to produce the doubling of each line of the progressive line signal in the
 4 frame and to transmit the frame to the display in a shorter interval than was used to
 5 write the progressive line signal to the memory.

1 5. The method of claim 4, wherein the shorter interval compensates for the
 2 transmission of black lines transmitted at the top and bottom of the display.

1 6. The method of claim 1, wherein the method further comprises the steps of writing
2 the signal corresponding to the predetermined number of active lines of video into a
3 memory and reading out the predetermined number of active lines of video from the
4 memory in a shorter time interval than was used to write the signal corresponding to
5 the predetermined number of active lines of video into the memory.

1 7. The method of claim 6, wherein the signal corresponding to the predetermined
2 number of active lines is a 960p frame which is read out of the memory and
3 transmitted to the display in approximately 88% of a vertical period.

1 8. A method of displaying a standard definition television signal on a high definition
2 matrix display, comprising the steps of:
3 receiving the standard definition television signal to provide a received
4 signal;
5 sampling the received signal to provide a sampled digital video signal;
6 deinterlacing the sampled digital video signal to provide a progressive
7 line signal;
8 doubling the progressive line signal to provide a predetermined
9 number of active lines of video in a frame;
10 storing the frame containing the predetermined number of active lines
11 in a memory; and
12 reading the frame from memory and transmitting it to the high
13 definition matrix display in a shortened vertical interval.

1 9. The method of claim 8, wherein the shortened vertical interval is
2 approximately 88% of a vertical interval.

1 10. The method of claim 8, wherein the step of doubling comprises the step of
2 repeating each line of the progressive line signal to produce a standard 960p signal,
3 wherein the progressive line signal is a 480p signal.

- 1 11. The method of claim 8, wherein step of storing the frame, comprises the step of
2 storing a 960p signal into the memory.
- 1 12. The method of claim 8, wherein the shorter interval compensates for the
2 transmission of black lines transmitted at the top and bottom of the display.
- 1 13. The method of claim 8, wherein the signal corresponding to the predetermined
2 number of active lines is a 960p frame which is read out of the memory and
3 transmitted to the display in approximately 88% of a vertical interval.

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